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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,034	03/16/2004	Fuminori Suzuki	2018-861	1265
23117	7590	09/09/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			LE, DAVID D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,034

Applicant(s)

SUZUKI ET AL.

Examiner

David D. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/801,034, filed on 16 March 2004. Claims 1-20 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 03/16/04
 - Foreign Priority Document, received on 03/16/04

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 6, 7, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 6, 7, and 16:

- Claim 6 recites the limitation "the plurality of oil passages". There is insufficient antecedent basis for this limitation in the claim.
- Claim 7 recites the limitation "the plurality of oil passages". There is insufficient antecedent basis for this limitation in the claim.
- Claim 16 recites the limitation "the plurality of oil passages". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 6, 8, 10, 11, 16, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,692,402 to Nakamori et al.**

Claims 1, 6, 8, 10, 11, 16, 18, and 20:

Nakamori (Figs. 1-9; column 2, line 41 – column 14, line 16) discloses a control apparatus for an automatic transmission comprising:

- A plurality of friction elements (i.e., Figs. 2a and 2b);
- A torque converter (i.e., Fig. 2a, element 4);
- A lock-up clutch (i.e., Fig. 2a, element 36);
- An input shaft (i.e., Fig. 2a, element 37);
- An output shaft (i.e., Fig. 2a, element 39);
- A manual valve (i.e., Fig. 3, element 62);
- A hydraulic circuit (i.e., Fig. 3);
- A mechanical pump (i.e., Fig. 3, element 7) driven by an engine (i.e., Fig. 1, element 2);

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- A motor pump (i.e., Fig. 1, element 8);
- An oil passage to which a fluid is supplied from the mechanical pump and the motor pump (i.e., Fig. 3);
- A driving control means (i.e., Fig. 4, element 10b) for driving the motor pump when a change of state in the automatic transmission and the hydraulic circuit is detected while the engine revolves without any aid of a starter so that the mechanical pump supplies the fluid to the oil passage (i.e., column 8, lines 7-36);
- Wherein the transmission includes an idle stop system (i.e., Fig. 9; column 11, line 45 – column 12, line 16); and
- Wherein the motor pump is driven when a change such that a fluid temperature become lower than a predetermined value is detected in the automatic transmission (i.e., column 12, lines 30-39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2-5, 7, 9, 12-15, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamori et al. in view of U. S. Patent No. 6,695,589 to Dougan et al.**

Claims 2-5, 7, 9, 12-15, 17, and 19:

Nakamori discloses the limitations as set forth above. Regarding claims 2-5, 7, 9, 12-15, 17, and 19, Nakamori does not explicitly disclose:

- Wherein the driving control means drives the motor pump when a change such that an input-side torque exceeds a predetermined value is detected in the automatic transmission;
- Wherein the driving control means drives the motor pump when a difference in a number of revolutions between the input shaft and the output shaft exceeds a predetermined value is detected in the automatic transmission;
- Wherein the driving control means drives the motor pump when a directly connected state of the input shaft and the output shaft and a change in a number of revolutions exceeds the predetermined value are detected in the automatic transmission;
- Wherein the driving control means drives the motor pump when a shift of the gear position is detected in the automatic transmission;
- Wherein the driving control means drives the motor pump when a change such that the oil passages are switched by the manual valve is detected in the hydraulic circuit;
- A lubricating circuit;
- A cooler; and

- Wherein the driving control means drives the motor pump when a change of a fluid temperature exceeding a predetermined value is detected in the automatic transmission.

Dougan (Fig. 1; column 2, line 36 – column 5, line 26), on the other hand, teaches a control for an electric motor driven pump comprising:

- A transmission (28);
- A oil pump (12);
- An electric motor (14);
- A torque converter (30);
- A control unit (26) including a central processing unit (32);
- A cooler (column 4, line 65);
- A lubricating circuit (column 5, line 25);
- Wherein the electric motor driven pump (being the combination of electric motor 14 and oil pump 12) is structured to operate as a primary hydraulic pump for the power train, and is controlled by the control unit (26) to supply sufficient hydraulic fluid/pressure to various components of the automatic transmission, in order to enable the automatic transmission to perform all of its functions, which inherently or explicitly include all the functions that Nakamori does not explicitly disclose above, during all phases of the vehicle operating conditions (i.e., column 5, lines 1-26).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to recognize the operating advantages of Dougan electric driven pump and to modify Nakamori such that the driving control means (10b) drives the motor pump (8) to supply hydraulic fluid/pressure to various components of the transmission, in view of Dougan, in order to surely enable the automatic transmission to fully perform all of the transmission functions, including all the functions that Nakamori does not explicitly disclose above, even during engine idling/stopping conditions, or during, in event, when the mechanical oil pump (7) does not sufficiently provide adequate hydraulic fluid/pressure to the components of the transmission (i.e., column 5, lines 1-26).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Matsubara et al. (U. S. Patent No. 6,760,655) teaches an automatic engine stop/start-type vehicle comprising an oil pump control device, an electric oil pump and a mechanical oil pump, as shown in Fig. 5.
- Matsubara et al. (U. S. Patent No. 6,463,375) teaches an automatic start controlling apparatus for automatically starting an internal combustion engine comprising an electric oil pump and a mechanical oil pump, as shown in Fig. 1.

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- Katou (U. S. Patent No. 6,482,127) teaches a control system of an automatic transmission comprising an idling stop control unit, an electric oil pump, and a mechanical oil pump, as shown in Fig. 1.
- Aoki et al. (U. S. Patent No. 6,390,947) teaches a hydraulic circuit of an automatic transmission as shown in Fig. 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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